

The photoelectretic state...

S/181/62/004/006/006/051
B125/B104

and 0.2, respectively) and are caused by a complex system of trapping levels. The dark polarization is connected with shallow traps. The results correspond to the luminescence properties of AgCl phosphors. Investigations of the photoelectrical properties of silver chloride are under way. There are 4 figures. ✓

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova
(Odessa State University imeni I. I. Mechnikov)

SUBMITTED: December 15, 1961

Card 2/2

BELOUS, V.M.

Some characteristics of the luminescence of photographic emulsions.
Zhur.nauch.i prikl.fot.i kin. 7 no.5:386-388 S-O '62.

(MIRA 15:11)

(Photographic emulsions) (Phosphorescence)

S/051/62/012/002/014/020
E202/E192

AUTHORS: Belous, V.M., and Golub, S.I.

TITLE: Action of infrared light on luminescence of pure and mixed silver halide phosphors

PERIODICAL: Optika i spektroskopiya, v.12, no.2, 1962, 271-274

TEXT: The authors studied the effects of infrared light on various bands of luminescence in pure and mixed silver halide single crystals, viz. AgCl with additives of AgBr and AgI, and AgBr with additives of AgCl and AgI. The luminescence was measured photographically at liquid nitrogen temperatures. The method used in studying the effects of infrared light on the different luminescence bands was that described previously (Ref.4: V.M. Belous, N.G. D'yachenko, Optika i spektroskopiya, v.10, 1961, 649). The blue, green and orange bands were isolated by suitable filters and recorded using a photoelectric multiplier and oscilloscope. However, the authors did not have a photoelectric multiplier sensitive to red, so that bands in that region were either not studied or observed only visually. The luminescence was excited by 313 and 365 mμ lines isolated from a

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Action of infrared light on ... S/051/62/012/002/014/020
E202/E192

Hg lamp by means of a quartz monochromator. The authors listed 16 compositions containing the above additives varying from 0.01 to 20% mol. noting the presence of flashing due to the exposure to infrared radiation during the stationary glow, the presence of quenching also due to infrared, and the presence of flashing after the blackout interval, for each of the luminescence bands isolated by the filters. It was found that IR had different effect on various bands. The kinetics of glow growth in all bands depended on whether the secondary exposure to the exciting light was preceded by the exposure to infrared radiation. In the mixed silver halide phosphors the flashing increased linearly with the increase of the intensity of ultraviolet in the exciting light, until in the region of high intensities flashing was observed to decrease. There are 4 figures and 1 table.

SUBMITTED: February 20, 1961

Card 2/2

42535

S/051/62/013/003/006/012
E202/E435

AUTHOR: Belous, V.M.

TITLE: Effect of thermal treatment on the formation of the trapping level spectrum of silver chloride

PERIODICAL: Optika i spektroskopiya, v.13, no.3, 1962, 412-415

TEXT: From a single crystal of AgCl grown according to Bridgman method, a number of platelets of 1 mm thickness and 10 mm diameter were cut out and annealed in air at 400°C for 2 hours. In one batch this was followed by slow cooling down to room temperature, in the other the sample was tempered by rapid cooling either to room or to liquid air temperatures. The samples were excited by ultraviolet radiation for 15 sec and, after termination of the excitation, infrared irradiation was used for a measured period of time and the scintillation was recorded. Before repeated excitation, the samples were exposed to a sufficiently long infrared irradiation to dissipate completely the residual luminescence stored at various levels of localization. The results were represented by plotting the intensity of scintillation stimulated by the infrared irradiation against the Card 1/3

Effect of thermal treatment ...

S/051/62/013/003/006/012
E202/E435

duration of the dark interval, i.e. the interval between the switching off of the stationary excitation and the application of the infrared radiation. In the case of samples cooled down to room temperature, there was one maximum only. Samples subjected to tempering gave two maxima, one of which coincided with the maximum of the annealed samples while the other formed a very wide plateau. Perceptible decrease of scintillation in the region of the latter took place only after a two hour dark interval. This increasing accumulative capacity of the phosphor was interpreted as the formation of new system of electron trapping levels caused by the tempering of the silver chloride crystal. Plastic deformation was also used to study the formation of trapping centres; samples were placed in special moulds and subjected to a static pressure of 3000 atm/cm². This treatment led to the reduction of scintillation and a uniform lowering of the intensity - dark interval curves over all ranges of time studied. These results were also interpreted by the appearance of new electron trapping centres, this time due to the applied pressure. Details of the experimental technique were published in earlier work of the

Card 2/3

Effect of thermal treatment ...

S/051/62/013/003/006/012
E202/E435

author (Opt. i spektr. 11, 1961, 431). There are 4 figures.

SUBMITTED: June 26, 1961

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BELOUS, V. M.

Nature of electron trapping levels in silver chloride crystals.
Opt. 1 spektr. 13 no.6:850-851 D '62. (MIRA 16:1)

(Electrons--Capture)
(Silver chloride crystals--Spectra)

43496

S/051/62/013/006/012/027
E039/E120

AUTHOR: Belous, V.M.

TITLE: Nature of electron-trapping levels in silver chloride crystals

PERIODICAL: Optika i spektroskopiya, v.13, no.6, 1962, 852-854

TEXT: The effect of an admixture of silver on the 'spark' properties of silver chloride is investigated. The formation of Ag centres in AgCl by the action of ultraviolet light is used as a means of creating different concentrations of Ag in the phosphor. Single crystals are grown and made into thin single crystal plates of thickness 0.3-1 mm by a rolling process. The method of investigating the luminescent properties of the AgCl is as described in an earlier paper (Opt. i spektr., v.11, 1961, 431). It is shown that the illumination of undecomposed AgCl by the light from a CBДШ-250 (SVDSH-250) lamp at room temperature has a significant effect on the 'spark' properties of the phosphor. Comparison of the intensities of luminescence stimulated by spark (I_{sp}) and ultraviolet (I_{lum}) shows that the ratio of I_{sp}/I_{lum}

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Nature of electron-trapping levels ... S/051/62/013/006/012/027
E039/E120

increases with increase of Ag concentration in the phosphor. Measurements of absorption in illuminated and non-illuminated layers shows the presence of a new absorption maximum in the former at 0.55μ . Spectra stimulated by an optical spark show a wavelength limit at $\sim 1.1-1.3 \mu$. Data from these spectra are used to determine the minimum energy necessary for transferring electrons from the 'spark' level to the conduction zone in AgCl (1.0-1.1 eV). The colloidal centres in AgCl act as traps for photoelectrons and the condition $N > n$ is attained, where N is the number of electrons liberated by the exciting light and n the number of ionised luminescent centres. It is shown that the "decay spectrum of ionisation centres" possesses a maximum at 0.55μ . Comparison of this maximum with the activation absorption band confirms the conclusion that in the formation of deep traps the electrons essentially belong to the Ag centres. There are 2 figures.

SUBMITTED: January 12, 1962

Card 2/2

L 19478-63 EWT(1)/EWP(q)/EWT(m)/EWP(b)/BDS AFPTC/ASD/LJP(C)/SSD JD
ACCESSION NR: AT3002220 S/2941/63/001/000/0192/0198

AUTHOR: Belous, V. M.

TITLE: On the mechanism of silver chloride luminescence

SOURCE: Optika i spektroskopiya, sbornik statey. v. 1: Lyuminestsentsiya.
Moscow, Izd-vo AN SSSR, 1963, 193-198

TOPIC TAGS: infrared, irradiation, quenching, band

ABSTRACT: An investigation has been made of the effect of infrared irradiation on radiation bands of silver chloride sublimate, using a specimen of silver chloride emulsion and monocrystalline AgCl grown by the Bridgman method. After the infrared treatment, radiation characteristics of the phosphorsublimates showed two intense bands in the region 480 and 650 mμ, the silver chloride emulsion showing a very intense green band and the monocrystal--a very intense blue band. On the basis of these experiments the author concludes that irradiation of a phosphor by infrared light leads to flashing and quenching luminescence bands in the radiation scheme of Schon and Klasens and to flash quenching with subsequent increase in band radiation levels in the radiation mechanism of Lambe and Klick. It is also noted that the increase in the long wave bands of flashing radiation is connected

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X
B

L 19478-63

ACCESSION NR: AT3002220

with hole-forming process. "The author is grateful to S. I. Golub for his evaluation of the work." Orig art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 23Jan62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 011

OTHER: 015

Card 2/2

BELOUS, V.M.; GOLUB, S.I.

Effect of deformation on the luminescent properties of silver halides. Izv. vys. ucheb. zav; fiz. no.1:89-91 '63. (MIRA 16:5)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.
(Deformation (Mechanics)) (Silver halides)

BELOUS, V.M. [Bilous, V.M.]

Kinetics of a silver chloride luminescence flash. Ukr. fiz. zhur.
8 no.12:1345-1352 D '63. (MIRA 17:4)

1. Odesskoye vyssheye inzhenerno-morskoye uchilishche.

1/051/63/014/004/021/021
8059/2420

AUTHORS: Belov, V.N., Golub, B.T.

TITLE: Certain peculiarities of the luminescence of AgCl-Mn phosphors

PERIODICAL: Optika i Spektroskopiya, v.14, no.4, 1963, 516-520

TRIP: A detailed investigation of the properties of AgCl-Mn are carried out and discussed. The Mn content is 0.04 to 0.07 mole %. It is shown that AgCl-Mn possesses an optical flash in the red Mn band for any concentration of Mn. This effect occurs only after a definite time of storage (t) of a sample both at low temperature and at room temperature or after exposure to infrared light. An increase in t facilitates the development of the flash even after a year's storage at room temperature in darkness. The peculiarity of the luminescence of AgCl-Mn develops from a competition between two mechanisms - that of M. Schön and H.A. Klassen and that of J. Loh and G. Klick - and leads to a study of the blue and red Mn bands. The dependence of the intensity of these bands on the intensity of the ultraviolet (E) (365 mμ) is measured and shown to be nonlinear. The intensity of the blue

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Certain peculiarities...

8/091/63/014/004/011/016
B035/B420

and increases faster than the red with increasing (B) and hence
the color of the fluorescence changes from pink to blue. The
results are completely analogous to those obtained by V.L. Lavashin
(ZhDTF, 7:37, 1967; 671) for ZnS. There are 4 figures.

Submitted: May 29, 1968

CDT 1/2

BELOUE, V.M.; CHIBISOV, K.V.

Relationship between the luminescent and photographic properties of emulsion layers. Zhur.nauch. i prikl.fot. i kin.
8 no.5:334-337 S-O '63. (MIRA 16:9)

BELOUS, V.M. [Bilous, V.M.]

Some characteristics of the luminescence of melts of silver chloride.
Ukr. fiz. zhur. 8 no.11:1257-1259 N '64. (MIRA 17:9)

1. Odesskoye vyssheye inzhenerno-morskoye uchilishche.

BELOUS, V.M.

Photoemission from silver centers and the phenomenon of
luminescence flash of silver chloride. Zhur. nauch. i
prikl. fot. i kin. 9 no.5:363-368 S-0 '64.

(MIRA 17:10)

1. Odesskoye vyssheye inzhenernoye morskoye uchilishche.

ILLEGIBLE

ILLEGIBLE

ILLEGIBLE

ACC NR: AP6030718

SOURCE CODE: UR/0368/66/005/002/0210/0215

AUTHOR: Belous, V. M.

ORG: none

TITLE: Nature and "interaction" of capture centers in silver-halogen phosphors

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 2, 1966, 210-215

TOPIC TAGS: crystal phosphor, electron capture, electron trapping, luminescence, silver, chloride, photoelectron, photoelectric effect, ~~electron capture~~, light ~~excitation~~

ABSTRACT: It is shown that the flash of luminescence in silver chloride excited by longwave light is associated with the photoemission of electrons from the precolloidal and colloidal silver centers. The effect of electron redistribution at the trapping levels, i.e., the flow of electrons from the shallow traps to the deep traps referred to as "the interaction" of capture centers, is investigated. The investigation of this effect makes it possible to study the capture levels in phosphors and to confirm the ionic mechanism of decrease in the sum of light at the deep traps of the silver chloride. This paper was read at the Twelfth All-Union Conference on Luminescence of Crystal Phosphors, held in Lvov in January 1964. The author thanks V. A. Plotnikov, a senior scientific worker at the OGU computer center, for carrying out the calculations. Orig. art. has: 4 figures and 7 formulas.

SUB CODE: 20/ SUBM DATE: 25Jan65/ ORIG REF: 021/ OTH REF: 005
Card 1/1

UDC: 535.37

24,3500 (1137,1138)

34426
S/185/61/006/006/003/030
D299/D304

AUTHOR: Bilous, V.M. [BELOUS, V.M.]

TITLE: On localized electron levels in silver-halide phosphors and the quenching effect of the exciting light

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961, 735 - 737

TEXT: The dependence was studied of the intensity I of luminescence-glow of silver-halide phosphors (AgCl-single crystals, AgCl layers, single crystals of AgCl + 0.1 mol % AgJ and AgCl + 1 mol% AgJ) on the duration t of the dark interval between moment when the excitation (by ultraviolet light) ceased and stimulation by infrared light started. The experimental apparatus was described in detail in an earlier work. The specimens were illuminated for 15 seconds by ultraviolet light, then the illumination ceased and after a certain interval t , infrared light was used and the glow -- recorded (by the photomultiplier ФЭУ-19М (FEU-19M), the filter Ц3С-18 (SZS-18), and the oscillograph ЭХО-1 (ENO-1)). Then the specimen was

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On localized electron levels in ...

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D299/D304

again illuminated for 15 sec. and the glow was measured after a different interval t . The curve I versus t can have a maximum for any of the specimens under investigation, at either of the 2 wavelengths of the exciting light ($\lambda = 365 \text{ mp}$ or $\lambda = 313 \text{ mp}$); the position of the maximum dependent on the intensity E of the ultraviolet light. It was found that if the excitation is effected by ultraviolet light, whose intensity lies in a region in which I decreases with increasing E , then the maximum of the curves $I = f(t)$ is shifted considerably towards large t , as compared to the position of the same maximum corresponding to ultraviolet light, whose intensity lies in a region where I increases with E . The presence of the maximum is proof of a process of electron redistribution in the localized trapping levels. By analogy with the properties of ZnS-Mn and ZnS-Ni phosphors (studied in the references), the presence of 2 such systems of localized electron-levels can be assumed in the AgCl- and AgCl + AgJ specimens. The obtained experimental results can be explained as follows (without considering the nature of the levels). At the moment of luminescence excitation, the infrared-glow levels (IF) and the excitation levels (Exc.) are filled by electrons. After the exciting light ceases, two processes take place

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On localized electron levels in ...

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D299/D304

ces A decrease in the number of electrons in the IF-levels, and a transfer of electrons from the Exc.-levels to the IF-levels. The course of the overall process is studied by determining the number of electrons in the IF-levels by means of the infrared light. The obtained results lead to the conclusion that the probability of observing the indicated processes at a certain stage of the dark interval depends on the ratio of the number of electrons in the IF-level to those in the Exc.-level. On the assumption that the above interpretation of the connection between the excitation and the position of the maximum of the $I = f(t)$ - curves, is correct, the curve $I = f(E)$ is plotted. A figure shows the $I = f(E)$ - curves for an AgCl single-crystal, prepared by Bridgman's method. The assumptions made were fully confirmed by experiment. Further, the time dependence is obtained of electron transfer from the shallow levels to the deep ones. It is noted that the obtained dependence $\Delta I(\Delta n) = f(t)$ (Δn being the number of electrons which migrated from the Exc.-levels to the If-levels), is entirely analogous to that of a similar process for ZnS-Mn and ZnS-Ni phosphors. An analysis of the ΔI -curve shows that the electron-transfer process is slowed down in time. ✓

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On localized electron levels in ...

S/185/61/006/006/003/030
D299/D304

There are 3 figures and 3 Soviet-bloc references.

ASSOCIATION: Odes'kyy derzhavnyy universytet im. I.I. Mechnykova
(Odessa State University im. I.I. Mechnykov)

✓

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24.3500 (1137,1138) / [BELOUS, V.M.] 34427
S/185/61/006/006/004/030
D299/D304

AUTHORS: Bilous, V.M., and Holub, S.Y.

TITLE: On the effect of infrared light on the luminescence
of pure- and mixed silver-halide phosphors

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961,
738 - 741

TEXT: The luminescence spectra were measured by the photographic method and the effect of the infrared light on the various luminescence bands by apparatus described in the references. It was found that in a number of mixed silver-halide single crystals, glow and quenching of luminescence occurs as a result of the infrared light, whereas in silver bromide, only quenching was observed. All the relevant experimental results are listed in a table. The effect of infrared light on the luminescence of AgCl sublimate is dealt with in more detail. Although for the majority of specimens the authors were unable (due to lack of a suitable photomultiplier) to study the effect of the infrared light on the red luminescence band, yet

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On the effect of infrared light ...

S/185/61/006/006/004/030
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in two cases they succeeded. Thereby an oscillogram of typical shape was obtained. On applying the infrared light, the luminescence increased; after removing the infrared light, a glow was observed and the previous level of luminescence was restored. The authors note that such a behavior of luminescence under the effect of infrared light, had not been observed hitherto. The fact that infrared light has a different effect on the various luminescence bands of AgHal, cannot be interpreted on the basis of Seitz's model. The obtained experimental material shows that the various luminescence bands are due to centers of different nature and that the luminescence mechanism of these bands (the blue and orange-red, e.g.) differs, too. The increase in luminescence of all the investigated single crystals (and of all the bands), depends on whether or not the repeated excitation of the specimens was preceded by infrared illumination. This fact could be related to the trapping of (freed) electrons. It was found that the intensity of the glow increases linearly with the intensity of the ultraviolet (exciting) light, and that with high intensities of the latter, it begins to decrease. This fact shows that the electron trapping-levels of mixed silver-

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On the effect of infrared light ...

S/185/61/006/006/004/030
D299/D304

halide phosphors are subject to the quenching effect of the exciting light. There are 1 figure, 1 table and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: F. Moser, F. Urbach, Phys. Rev., 106, 852, 1957.

ASSOCIATION: Odes'kyi derzhavnyi universytet im. I.I. Mechnykova
(Odessa State University im. I.I. Mechnikov)

4

Card 3/3

ACCESSION NR: AP4010409

AUTHOR: Bilous, V. M.

[BELOUS, V. M.]

S/0185/63/008/012/1345/1352

TITLE: On the kinetics of quenching of a silver chloride luminescence flash

SOURCE: Ukrayins'kyi fis. zhurnal, v. 8, no. 12, 1963, 1345-1352

TOPIC TAGS: AgCl, silver chloride, photoluminescence, quenching, damping, after-glow, crystal, phosphor, electron, electron excitation, de-excitation, hole, electron migration, hole migration, ultraviolet excitation, luminescence stimulation

ABSTRACT: An investigation was conducted of the kinetics of damping of luminescence flashes of AgCl excited with ultraviolet light and stimulated with infrared. It is shown that, in certain cases of optical de-excitation of AgCl, differential equations proposed by other authors describe the kinetics of damping of the flash, and the experimental results agree with the conclusions of Adirovich's theory [Abstracter's note: Adirovich's theory not stated.] When ultraviolet light of considerable intensity is used for excitation, the law of the damping of the flash proves to be complicated -- at first the damping proceeds exponentially, then hyperbolically. The dependence of the kinetics of damping on the value of the light sum accumulated by the phosphor and on the intensity of the stimulating light

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ACCESSION NR: AP4010409

is studied. The connection between the intensity of the flash and the value of the light sum accumulated in the phosphor is complicated in the general case. For the intensities of exciting and de-exciting light used in this work fulfillment of the law of interreplaceability during optical de-excitation of electrons with a capture level can be established. Orig. art. has: 2 formulas, 6 figures, and 1 table.

ASSOCIATION: Odes'ke vy'shche inshenerno-mors'ke yohy*lishche (Odessa Higher School of Marine Engineering)

SUBMITTED: 10Apr63

DATE ACQ: 20Jan64

ENCL: 00

SUB CODE: FH

NO REF SOV: 020

OTHER: 002

Card 2/2

BELOUS, V.N.

Nonparasitic cyst of the spleen. Khirurgiia no.3:79-80 Mr '54)
(MLBA 7:5)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. kafedroy - prof.
P.S.Fedorov) Stavropol'skogo meditsinskogo instituta i krayevoy
klinicheskoy bol'nitsy (glavnyy vrach D.N.Filippova).

(SPLEEN, cysts,
*not parasitic)

(SYSTS,
*spleen, not parasitic)

RYABININ, A.A.; BELOUS, V.N.

Morolic acid in *Pyracantha coccinea* Roen. Zhur.ob.khim. 33
no.10:3447 0 '63. (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet.

I 11979-66 EWT(a)/EWA(d)/EWP(e)/EWP(z)/EWP(b) ISF(c) MJW/JD/WJ/JW/WB
 ACC NR: AP6001803 (N) SOURCE CODE: UR/0089/65/019/006/0516/0519

AUTHOR: Belous, V. N.; Gromova, A. I.; Shapovalov, E. T.; Gerasimov, V. V.

ORG: none

TITLE: Corrosion resistance of construction materials in boron-containing solutions

SOURCE: Atomnaya energiya, v. 19, no. 6, 1965, 546-549

TOPIC TAGS: corrosion rate, boron compound, nuclear reactor material, nuclear reactor shield

ABSTRACT: Since boron has a large cross section for thermal neutron capture, boron-containing solutions are used for neutron shielding and reactor control. The use of aqueous solutions of boron, however, raises the question of corrosion resistance to such solutions of various construction materials. The authors carried out corrosion tests up to 1000 in solutions of boric acid, sodium tetraborate, and ammonium tetraborate. Tabulated data are presented showing 1) the characteristics of the original solutions at room temperature; 2) the rate of corrosion in the 20-100C temperature range for periods of 100 - 500 hr of OKh18NiOT steel, VT-1-2 alloy (Ti), AMa-5 alloy (Al), 8-1 lead, and steel 20 in deaerated and air-saturated boron-containing solutions; 3) the ratio of the amount of metal going into the solution to the

Card 1/2

L 14979-66

ACC NR: AP6001803

amount of metal lost due to corrosion; and 4) the rate of corrosion of these materials in boric acid at 1000 for a period of 100 hr. Orig. art. has: 4 tables. 0

SUB CODE: 11, 18 / SUBM DATE: 17Mar65 / ORIG REF: 001 / OTH REF: 006

Card 2/2 *print*

UDC: 620.193.4: 621.039.546

ACCESSION NR: AP4017599

S/0109/64/009/002/0293/0299

AUTHOR: Tkachenko, V. M.; Kostin, V. N.; Belous, V. V.

TITLE: Effect of a high-frequency electric field on the glow discharge

SOURCE: Radiotekhnika i elektronika, v. 9, no. 2, 1964, 293-299

TOPIC TAGS: glow discharge, glow discharge column, glow discharge column compression, hf glow discharge column compression, glow discharge in air, glow discharge in hydrogen, glow discharge in deuterium

ABSTRACT: A theoretico-experimental investigation of the effect of an axially-symmetric h-f field produced by a set of rings on the glow discharge for various field frequencies, discharge currents, gases, and gas pressures is reported. A formula is developed for the diameter of the compressed-discharge column which depends on the field frequency, electron temperature, discharge-tube radius, and the frequency of collisions between ions and gas molecules (i.e., ion temperature

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ACCESSION NR: AP4017599

and gas pressure). Experiments conducted with a 40-cm-long 3-cm-diameter gas-discharge tube supplied with a d-c 0-6-kv voltage and equipped with a movable (0-300 v) inside probe and 5 outside rings (10-230-kc) corroborated the validity of the formula. The variation of ion and electron currents, space potential, temperature and concentration of electrons depending on the h-f field were determined from the probe characteristics. Air, hydrogen, and deuterium at 0.1-4 torr were tested. Orig. art. has: 4 figures and 17 formulas.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: 01Dec62

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: GE, PH

NO REF SOV: 008

OTHER: 000

Card 2/2

MIKHALEVICH, V.I.; KATSAP, P.D.; BELOUS, Ye.M.

Correlation between the properties of casing-head gas and the
stratigraphic section of the wells of the oil fields of the
Carpathian Mountain Region. Neft. i gaz. prom. no.3:15-16
Jl-S '64. (MIRA 17:12)

BELOUS, YE. V.

OSHMARIN, P.G. AND BELOUS, YE. V.

1951. K faune filyariy dikikh zhivotnykh. tr. Gel'mintol. Laborat. AN
SSSR, t. V, str. 125-126.

HELMINTHOL. Lab., 1951

Beloous

OSHMARIN, P.G.; BELOUS, N.V.

Significance of the symptoms of localization of helminths for the formulation of a classification based on new Echinostomatida obtained from the eagle's kidneys. Doklady Akad.nauk SSSR 77 no.1: 165-168 1 Mar 51. (CLML 20:6)

1. Presented by Academician K.I. Skryabin 2 January 1951. 2. Radium Institute imeni V.G. Khlopin of the Academy of Sciences USSR.

RELTU, Ye V.

"Parasitic Worms of Freshwater Vertebrates in Priborskiy Kray." Cand Biol Sci, All-Union Inst of Helminthology, Moscow, 1953. (Izvestiya, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

OSHMARIN, P.G.; OPARIN, P.G.; SADOVSKAYA, N.P.; BELOUS, Ye.V.; DOTSENKO, T.K

Work of the Far Eastern branch of the Academy of Sciences of the U.S.S.R. on the study of helminths of domestic and wild animals and on the organization of measures for combating helminthic diseases on Maritime Territory collective farms. Trudy probl. i tem. sov. no. 4: 135-141 '54. (MLRA 8:7)

1. Dal'nevostochnyy filial Akademii nauk SSSR i Primorskaya nauchno-issledovatel'skaya veterinarnaya opyt'naya stantsiya. (Maritime Territory--Worms, Intestinal and parasitic)

BELOUS, Ye.V.

Systematics of trematodes of the family Haploporidae Nicoll, 1914.
Trudy Gel'm.lab. 7:277-281 '54. (MIRA 8:5)
(Trematoda)

· Belous, Yu. L. .

14(6), 8(0)^{2.10}

PHASE I BOOK EXPLOITATION

SOV/3071

Akademiya nauk SSSR. Energeticheskiy institut

Elektroenergetika, vyp. 1 (Electric Power Engineering, Nr 1) Moscow, Izd-vo AN SSSR, 1959. 159 p. Errata slip inserted. 2,800 copies printed.

Eds. of Publishing House: P. F. Ogarkov and Ye. N. Grigor'yev; Tech. Ed.: Ye. V. Zelenkova; Editorial Board: Yu. G. Tolstov, Doctor of Technical Sciences (Resp. Ed.), I. M. Markovich, Doctor of Technical Sciences, I. S. Stekol'nikov, Doctor of Technical Sciences, P. I. Zubkov, Candidate of Technical Sciences, G. V. Mikhnevich, Candidate of Technical Sciences, V. I. Levitov, Candidate of Technical Sciences, and N. D. Bol'shov (Secretary)

PURPOSE: This collection of articles is intended for specialists in the various fields of electric power engineering treated in it.

COVERAGE: The first issue of the collection of articles, "Elektroenergetika", appeared in April 1959. It is published by ENIN imeni G. M. Krzhizhanovskiy of the Academy of Sciences, USSR. The articles in this issue are based on research and work by the
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authors under the auspices of ENIN. The articles are on a high theoretical and technical level and represent original contributions to various present-day problems in electrical engineering. References are given after most of the articles.

TABLE OF CONTENTS:

Tolstov, Yu. G., and A. L. Sarkisov. Arc Rectifiers With Increased Pressure

3

In 1954 and 1955 several theoretical and experimental investigations were made at the Institute in order to determine the possibility of using hot-cathode arc rectifiers with increased pressure for long-distance d-c power transmission. The investigations were aimed at improving the parameters of E. Marx arc rectifiers produced in Germany before and during the war. The authors conclude that, despite improvements, modern mercury arc rectifiers are superior to the hot-cathode ones and recommend use of the former in long-distance d-c power transmission. The following organizations and scientific personnel participated

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in the investigations together with ENIN: IMYeT - D.A. Petrov, K. M. Korol'kov, R. L. Petrusevich; MGU - N. A. Kaptsov, M. Z. Khokhlov and the welding section; Academy of Sciences, USSR - N. N. Rykalin, Corresponding Member of the Academy, I. D. Kulagin, A. I. Pugin and others. There are 4 references: 3 Soviet and 1 German.

Neyman, L. R., Ye. G. Burtseva, and S. R. Cliternik. Model of D-C Electric Power Transmission System of the Power Engineering Laboratory imeni M. A. Shatelen, ENIN AN SSSR

12

This d-c high-voltage network analyzer (model) was built at the laboratory in 1952/53. The following investigations are being conducted with it: increase of reliability and stability of network operation and effect of d-c electric power transmission on the static and dynamic stability of an a-c power system. The investigations are being conducted under the supervision of L. R. Neyman, Corresponding Member of the Academy of Sciences, USSR. There are no references.

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Kovalev, P. I., and G. P. Mostkova. High-Frequency Oscillations in Rectifying Units With Saturable Reactors 20

As a result of investigations conducted at the NIIPT, ENIN, and other organizations, methods were found for damping complex oscillations generated in converter installations. This was accomplished by switching a bypass circuit consisting of capacitances and resistances connected in series into the rectifier and power transformer phases. There are 6 references: 2 Soviet, 2 English, 1 German and 1 Italian.

Pyrkov, V. V. Problem of Designing Saturable Reactors for Low-Voltage Contact Rectifiers 31

The author considers the problem of designing saturable reactors for d-c low-voltage supply for electrochemical and electrometallurgical industries, which has not been adequately treated in the current literature. He aims at presenting a systematic survey of existing methods and suggests certain concrete recommendations on methods of calculating saturable reactors. There are 10 references: 2 Soviet, 6 German and 2 English.

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Utevskiy, A. M. Theory and Method of Designing Voltage-Doubling Rectifiers With a Capacitive Filter 44

The method suggested by the author was tested experimentally and found to satisfy engineering requirements. There are 11 references: 7 Soviet, 2 German and 2 English.

Gorelkin, N. V., Sh. I. Lutidze and P. M. Shpileva. Electronic Excitation of Synchronous Generators Using a Six-phase Circuit With a Buffer Rectifier 54

The authors credit Academician K. I. Shenfer with the first studies in 1933 on the problems of electronic excitation. Recent theoretical investigations on this subject were conducted in the USSR by D. A. Zavalishin, I. A. Glebov, Ye. L. Ettinger and by the electromechanics laboratory of ENIN. The authors made a number of investigations of electronic excitation on laboratory models using different circuit combinations. All of the methods using buffer rectifiers were introduced by the laboratory. The methods and results of
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investigations are presented. There are 3 references, all Soviet.

Lutidze, Sh. I. Analysis of an Electronic Exciter Connected Through a Three-phase Circuit With a Buffer Rectifier.

67

The author investigates simple and reliable three-phase electronic exciter systems with buffer rectifiers and applies the method of symmetrical components to obtain expressions for currents and voltages. This article is a continuation of the previous one. There are 3 references, all Soviet.

Gorelkin, N. V. and P. M. Shpileva. Application of Germanium Rectifiers in Excitation Circuits of Synchronous Generators

93

The electromechanics laboratory of ENIN developed, in 1956, an experimental installation of a synchronous generator equipped with a rotating germanium rectifier in a bridge circuit with germanium diodes of the DGTs-24 type. Results of experiments are presented. There are 5 references: 4

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Soviet and 1 English.

Kozlovskiy, G. F., and G. V. Mikhnevich. Equivalent Circuit of Station Generators Equipped With Strong-Action Regulators 98

The author presents a method of representing a group of n station generators by two identical generators equivalent to the group in their static characteristics. The method is used in studying static stability and the nature of transients of station generators. There are 4 references, all Soviet.

Gorushkin, V. I. Application of the Method of Successive Approximations for Calculating Complex Electrical Networks 105

There are 7 references, all Soviet.

Gol'tsov, N. A. Transformation of a Single-phase System Into a Three-phase Using Static Devices According to a Scheme Developed by P. A. Kalantarov and L. A. Tseytlin 114

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Electric Power Engineering, Nr 1

SOV/3071

The method used consists in employing capacitors in the circuit. The author derives formulas expressing the transformation. There are 3 references, all Soviet.

Aronzon, N. Z. Properties of a Certain Type of Oscillatory Circuit 117

No references are given.

Gol'tsov, N. A. Application of a Series of Functions for the Derivation of Formulas of Various Numerical Methods for Solving Ordinary Differential Equations 120

There are 3 references, all Soviet.

Stekol'nikov, I. S. The Mechanism of Discharge in Large Gap Spacings for Alternating Current 127

The author, a well-known specialist in problems of lightning protection, investigated the mechanism of discharge at industrial frequency and at various spacings of the air gap,
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all of them having practical applications. On the basis of several experiments, using various types of circuits and varying the parameters, the author concludes that the electric strength of a given spacing is not subject to substantial change when circuit parameters are varied. There are 8 references: 2 Soviet, 4 English and 2 German.

Pomiluyko, N. S. Electronic Electrothermic Anemometer With Semiconductor Pickups

142

Experimental investigation conducted at the electromechanics laboratory of ENIN on aerodynamics and heat transfer using turbogenerator models necessitated further development of methods of measuring temperatures and velocities in rotor and stator channels. To overcome difficulties encountered when using conventional methods of measurement (Prandtl tubes) the author developed semiconductor ball pickups and an electrothermic anemometer. He was assisted in this work by A. P. Pereleshina, Candidate of Technical Sciences, and mechanics I. A. Krupenin, B. I. Postnikov, and V. K. Semenov.

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Electric Power Engineering, Nr 1

SOV/3071

No references are given.

Sarkisov, A. L., Yu. L. Belous. Method of Determining Dynamic Voltampere Characteristics of Semiconductor Rectifiers on an Oscillograph

148

The authors describe a method of obtaining the real operational (dynamic) voltampere characteristic directly on the screen of a cathode-ray oscillograph by supplying, simultaneously on the horizontal and vertical pairs of the oscillograph, plate voltages proportional to the forward current and forward voltage (during the conductive part of the period) and to the reverse current and reverse voltage (during the non-conductive part of the period). The results of tests are presented. No references are given.

Moskvitin, A. I. The Most Advantageous Copper Space Factor in Direct-Cooling of Electric Machines

153

The author attempts to determine an optimum copper space factor at which it is possible to increase the current load
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to a maximum and to determine simultaneously maximum efficiency of internal cooling. For quantitative investigation the author uses formula which he derived by solving an equation of thermal conductivity with given marginal conditions. Results of the investigation are presented. There are 4 references: 2 Soviet, 1 English and 1 German.

AVAILABLE: Library of Congress

Card 11/11

JP/ec
2-9-60

SOV/126-6-4-7/34

AUTHORS: Belov, K.P.,
Svirina, Ye.P.,
Belous, Yu.V.

TITLE: Hall Effect in Alloys in the Region of Ferromagnetic
Transformation (Effekt Kholla v splavakh v oblasti
ferromagnitnogo prevrashcheniya)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6,
Nr 4, pp 621-627 (USSR)

ABSTRACT: The temperature characteristic of the Hall constant has a complicated shape, particularly in the neighbourhood of the Curie point. Usually, the Hall constant at any temperature is determined from the inclination angle of the Hall emf - magnetisation curves. However, the characteristic of these curves changes considerably with the temperature. On approaching the Curie point the role of the processes of displacement and rotation decreases, whilst the role of the real magnetisation (the para-process) becomes paramount. Thus, from the Hall emf - magnetisation curves some "mixed" Hall constant is determined which is caused by the

Card 1/5

SOV/126-6-4-7/34

Hall Effect in Alloys in the Region of Ferromagnetic Transformation

orientations of the spontaneous magnetisation, which are due to the magnetic forces of the lattice and they are also due to changes in this magnitude caused by the exchange forces. The necessity of determining two separate Hall constants corresponding to the processes of orientation of the magnetic moments of the domains and of the para-process has been pointed out for the first time by Volkov (Ref.7). The authors of this paper have attempted to dispense with the usually applied method of calculation of the Hall constant in ferromagnetics from measured data. Since the fundamental characteristic of a ferromagnetic is its spontaneous magnetisation I_s , an attempt has been made to separate from the experimental data the "spontaneous" Hall effect and to study the variation of this effect with the temperature. This method of studying the temperature dependence of the Hall effect excludes the influence of magnetisation processes brought about by an external field. Investigation of the temperature

Card 2/5

SOV/126-6-4-7/34

Hall Effect in Alloys in the Region of Ferromagnetic Transformation

dependence of the "spontaneous" Hall effect is also of interest from the point of view of verifying conclusions based on quantum mechanics theories of the Hall effect in ferromagnetics (Ref.8) in which this effect is considered as being a function of the spontaneous magnetisation. The authors of this paper investigated alloys with a high paraprocess (invar steels), since in such steels it is easier to separate out the "spontaneous" Hall effect than in other ferromagnetics. Furthermore, all the measurements were carried out in the region of ferromagnetic transformation (near the Curie point) where the processes of technical magnetisation are small, which also makes the determination of the spontaneous Hall effect easier. The investigations were carried out on specimens of the following compositions:

- 56.0% Co; 10.0% Cr; rest Fe.
- 36.0% Ni; 6.0% Co; rest Fe.
- 31.5% Ni; 5.7% Cr; rest Fe.

Card 3/5

SOV/1266.4.7/34

Hall Effect in Alloys in the Region of Ferromagnetic Transformation

After manufacture, the 6 x 12 x 150 mm specimens were subjected to homogenisation annealing in vacuum at 1000°C for 15 hours with subsequent slow cooling. The magnetisation was determined by a ballistic method. The Hall emf was measured in accordance with a method described by Kikoin (Ref.3) and Pugh (Ref.9) using a photo-electro-optic amplifier as described by Kozyrev (Ref.10). For each specimen the magnetisation and the Hall emf as a function of the field at a given temperature were measured simultaneously. The temperature was varied by means of a furnace with a bifilar heating wire placed inside the solenoid which generated the uniform magnetic field along the specimen. During the measurements the temperature was maintained constant with an accuracy of $\pm 0.1^\circ\text{C}$. The obtained results are graphed in Fig.1-8. It was found that in the neighbourhood of the Curie point the Hall constant

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SOV/126.6-4-7/3¹

Hall Effect in Alloys in the Region of Ferromagnetic
Transformation

shows a linear dependence on the square value of the
spontaneous magnetisation. There are 8 figures and
11 references of which 6 are Soviet and 5 English.

ASSOCIATION: Moskovskiy Gosudarstvennyy Universitet
Imeni M.V.Lomonosova (Moscow State University imeni
M.V.Lomonosov)

SUBMITTED: 1st April 1957.

Card 5/5

ILLEGIBLE

L 37001-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/T-2/EWP(w)/EWP(v) EM

ACC NR: AP6021488

SOURCE CODE: UR/0413/66/000/011/0140/0140

INVENTOR: Belous, Yu. V.; Bilyk, G. P.; Beketova, L. A.; Levochkin, P. A.

ORG: none

TITLE: Aircraft doors Class 62, No. 182527

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 140

TOPIC TAGS: auxiliary aircraft equipment, ~~aircraft landing gear~~, aircraft door,
AIRFRAME COMPONENT

ABSTRACT: An Author Certificate has been issued for aircraft doors, such as under-carriage doors, consisting of hinge plate joints, door jack (3), push rods (5), and

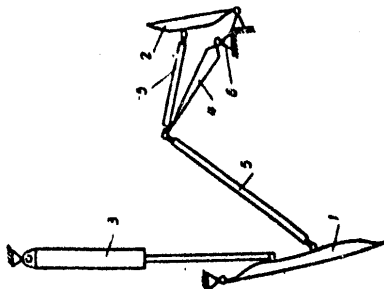


Fig. 1. Aircraft doors

1 - Door; 2 - balance; 3 - door jack;
4 - rocker arm; 5 - push rods; 6 - support.

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UDC: 629.13.014.69

L 37001-66

ACC NR: AP6021488

rocker arm (4). In order to decrease suction forces in flight and to improve the aerodynamic performance of the aircraft, the doors are equipped with aerodynamic balances (2), also in the form of doors, which are hinged to a fixed part of the aircraft and kinematically connected with the doors (1) by push rods (5) through the rocker arms (4). In addition the kinematic connection guarantees the balances' deflection in the opposite direction from the deflection of the doors. [WS]

SUB CODE: 01/ SUBM DATE: 10Jun65/ ATD PRESS: 5035

Card 2/2

NOVIKOV, A.; BELOUSENKO, G., starshiy ekonomist

Business accounting in brigades and farms of the collective farms
of Rostov Province. Den.i kred. 20 no.5:52-59 My '62.

(MIRA 15:5)

1. Nachal'nik otdela kreditovaniya kolkhovov Rostovskoy kontory
Gosbanka (for Novikov).

(Rostov Province--Collective farms--Finance)

BELOUSENKO, G.; UGLYANITSA, G.; ARTEMENKO, I.

Business accounting within individual production units and
monetary wages on collective farms. Den. i kred. 21 no. 4:22-29
Ap '63. (MIRA 16:4)

1. Starshiy ekonomist Rostovskoy kontory Gosbanka (for Belousenko).
2. Nachal'nik otдела kreditovaniya kolxozov Stavropol'skoy
krayevoy kontory Gosbanka (for Uglyanitsa). 3. Starshiy
ekonomist Stavropol'skoy krayevoy kontory Gosbanka (for
Artemenko).

(Collective farms--Finance)
(Collective farms--Income distribution)

BELOUSENKO, S.F.

Work in the laboratory should be more active. Fiz. v shkole 20
no.3:88-90 My-Je '60. (MIRA 13:11)

1. Il'skaya srednyaya shkola Kraenodarskogo kraya.
(Physics--Study and teaching)

BERKMAN, R. Ya.; BELOUS'KO, V.V.

Characteristics of the transformation of magnetic probes during
the measurement of nonuniform magnetic fields. Defektoskopiia
no. 5:61-67 '65 (MIRA 1961)

1. Fiziko-mekhanicheskiy institut AN UkrSSR, L'vov.

BELOUSOV, A.

Factory committee as an organizer of the workers recreations.
Sov. profsoiuzy 16-no.14:40-42 J1 '60. (MIRA 13:8)
(Industrial recreation)

BELOUSOV, A. A. inzhener.

Life of fat pumps. Mias.ind.SSSR 28 no.1:17-18 '57. (MLRA 10:3)

1. TSentral'noye kons rukhtroskoye byuro Glavnyasemolmasha.
(Pumping machinery)
(Oil industries--Equipment and supplies)

~~BELOUSOV, A. A.~~ ~~insener.~~

Line of equipment for processing unskinned swine. Mias. ind. SSSR
no.2:14 '57. (MIRA 10:5)

1. Tsentral'noye konstruktorskoye byuro.
(Meat industry--Equipment and supplies)

BOL'SHAKOV, A.; MIZERETSKIY, N.; BELOUSOV, A.; MATYTSIN, N.

Production and regeneration of brines. *Mias.ind.SSSR* 32 no.2:
15-17 '61. (MIRA 14:7)
(Brines)

BELOUSOV, A.; KOCHETOV, S.

Machine unit for rendering edible animal fats. Mias. ind. SSSR 33 no.3.
3-5 '62. (MIRA 15:7)
(Meat industry—Equipment and supplies)

ACC NR: AN7004489

(N)

SOURCE CODE: UR/9023/67/000/013/0004/0004

AUTHOR: Belousov, A. (Master of sports of SSSR)

ORG: none

TITLE: Changes in parachuting requirements

SOURCE: Sovetskiy patriot, no. 13, 12 Feb 67, p. 4, cols. 1-3

TOPIC TAGS: parachute, ^{non military} training

ABSTRACT:

In spite of the raising of parachuting requirements, the ranks of the USSR Sports Masters are ever growing. The USSR Federation of Aviation Sport gave the title of USSR Sports Master to 177 parachutists in 1965, and in 1966 to 240, including 45 women. The title of USSR Sports Master of the International Class has been given to 9 sportsmen. Recently, the USSR Federation of parachute sport raised the requirements for the only all-union sport classification in which the title of USSR sports master can be obtained. The requirements are outlined in this article.

SUB CODE: 05/ SUBM DATE: none/

Card 1/1

BELOUSOVA
BELOUSOV, A.

Protivovozdushnaia oborona i protivokhimicheskaia zashchita
strany. (Chto chitat', 1941, no. 3, p. 14-16)
Title tr.: Anti-aircraft and anti-chemical defense. (A bibliographic).

ZIM:G-2 1941

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

BELOUSOV, A., shurman.

Precision in computing latitude and azimuth. Mor.1 rech. flot 14
no.1:13-17 Ja '54. (MLRA 7:1)

(Azimuth) (Latitude)

BELOUSOV, A., shurman

Measurements of low-altitude celestial bodies. Mor.flot 20
no.10:16 0'60. (MIRA 13:10)
(Nautical astronomy)

BELOUSOV, A., podpolkovnik

Vital problems in teaching firing from tanks. Voen. vest. 42
no.10:101-102 0 '62. (MIRA 15:10)
(Tanks (Military science))

BELOUSOV, A.; VAL'TER, M., red.; INKIS, R., tekhn. red.

[Organizing technical control in machinery plants] Voprosy organizatsii tekhnicheskogo kontrolya na mashinostroitel'nykh zavodakh. Riga, TSentr. biuro tekhn. informatsii, 1962. 17 p.
(MIRA 16:3)

(Production control) (Machinery industry)

BELOUSOV, A., master sporta

Birdmen. Kryl. rod. 15 no.9:19 S '64.

(MIRA 18:1)

L 1172-66 EWT(d)/EED-2

ACCESSION NR: AP5017653

UR/0109/65/010/007/1171/1175
621.391,173

AUTHOR: Ball, G. A.; Belousov, A. A.

TITLE: Time correlation of arbitrarily delayed signals

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1171-1175

TOPIC TAGS: correlator, time correlation, signal correlation 4,44

ABSTRACT: Operation of a correlator consisting of a delay unit, a multiplier, and a linear integrator is theoretically considered. Stationary real random processes $X(t)$ and $Y(t)$ with zero mathematical expectations and a crosscorrelation

$$\varphi_{XY}(\tau) = \langle X(t)Y(t-\tau) \rangle_{X,Y} = \int_{-\infty}^{\infty} g_{XY}(\omega) e^{j\omega\tau} d\omega$$

are applied to the correlator inputs; here, $g_{XY}(\omega)$ is the mutual spectral density of the processes. This signal appears at the correlator output: $\Phi_{XY} = \int_{-\infty}^{\infty} X(v)Y(v-\tau)h(u-v)dv$, where $h(t)$ is the impulse transient response of the correlator. The delay τ varies according to a specified law. Formulas for the mathematical expectation and dispersion of the output signal of the correlator are derived which show their dependence on the input

Card 1/2

L 1172-66

ACCESSION NR: AP5017653

processes and on the law of variation of τ . Orig. art. has: 30 formulas. 0

ASSOCIATION: none

SUBMITTED: 06 May 64

ENCL: 00

SUB CODE: EC, MA

NO REF SOV: 004

OTHER: 002

Card 2/2 DP

BELOUSOV, A.A.

Some physical and technical indices of Caspian herring. Trudy
VNIRO 39:166-170 '59. (MIRA 14:6)
(Caspian*Sea--Herring) (Fishes--Anatomy)

PHASE I BOOK EXPLOITATION

687

Belousov, Aleksey Aleksandrovich, Master of Sports

Parashyut i parashyutizm (Parachutes and Parachute Jumping) Moscow, Voen. izd-vo
Min-va obor. SSSR, 1957. 180 p. (Series: Nauchno-populyarnaya biblioteka)

Ed.: Zalutskiy, G. V., Colonel; Ed. of Publishing House: Kader, Ya. M.;
Consultants of Publishing House: Foteyev, A. M., Colonel, Honored Master of
Sports, Glushkov, I. L., Master of Sports of the U.S.S.R., Engineer; Tech. Ed.:
Sleptsova, Ye. N.

PURPOSE: The book is intended for officers and enlisted men of the Soviet Army and
Navy, members of DOSAAF, and the general reader interested in parachute sports.

COVERAGE: In emphasizing the popularity of parachute jumping as a sport among
Soviet young people, the author relates its history and development, which
date back to 26 July 1930. He describes the first Soviet parachutes and the
sports organization, and mentions the principal rules observed in parachute
jumping.

Card 1/3

Parachutes and Parachute Jumping

687

He lists the accomplishments of individual parachutists in various competitions and in the many military and civilian uses in which parachute jumping is employed. The author describes the new D-1 parachute and credits the Soviet Union with organizing the first paratroop forces. He stresses the decisive significance of ground, naval and aviation forces which, in his view, can never be replaced by mass-destruction weapons. The record of civilian parachute jumping in rescue and fire-fighting work and in transportation is noted, and requirements for the different ranks in parachute sports from Master of Sports down are listed. The author also quotes extensively from several American military, aviation and political publications. The book contains 56 illustrations. No personalities are mentioned. There are 9 references, all Soviet.

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Ch. II. Modern Parachutes	20
Ch. III. Parachute Jumping	33
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Ch. V. Parachute Jumping in the Soviet Union	59
Ch. VI. Military Applications of Parachute Jumping	111
Ch. VII. Civilian Uses of Parachutes	146
Appendixes: Reference Tables of All-Union and World Records in Parachute Sports	169

AVAILABLE: Library of Congress (TL750.B38)

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IS/mas
10/6/58

L 04462-67 EWT(d)/ENP(v)/ENP(k)/ENP(h)/ENP(l)

ACC NR: AP6006555

(A)

SOURCE CODE: UR/0335/65/000/005/0022/0024

AUTHOR: Belousov, A. (Docent)

ORG: Moscow Technological Institute of the Meat and Dairy Industry (Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti)

3.0
B

TITLE: New cutting device of cutting machines

SOURCE: Myasnaya industriya SSSR, no. 5, 1965, 22-24

TOPIC TAGS: food product machinery, processed animal product ~~cutting tool~~

ABSTRACT: The Poltava Machine-Building Plant "Prodmas" (Poltavskiy mashinostroitel'nyy zavod "Prodmas") built cutting machines with new cutting devices which last 3-4 times longer than the old ones and reduce the electric power consumption by 15-20%. The crescent-shaped elements of the cutting edges cut the meat or fat at an angle of 45° with respect to the cutting surface decreasing the resistance to the progress of the stock and, consequently, the electric power consumption. It is suggested that the grids and blades be made of high and superhigh quality steel. Orig. art. has: 2 figures.

SUB CODE: 06,13/ SUBM DATE: none

Card 1/1 *efh*

UDC 637.513.6

ILLEGIBLE

ILLEGIBLE

ACC NR: AR7004284

SOURCE CODE: UR/0274/66/000/011/A006/A006

AUTHOR: Belousov, A. A.

TITLE: Theory of detecting signals in nonstationary normal noise

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 11A45

REF SOURCE: Vestn. Kiyevsk. politekhn. in-ta. Ser. radiotekh., no. 2, 1965, 101-108

TOPIC TAGS: signal noise separation, signal detection

ABSTRACT: The problem is considered of synthesizing signal detectors in the presence of a nonstationary random noise $z(t) = m_z(t) + Q(x(t))$, where $m_z(t)$ is a determinate function that characterizes the time dependence of the mathematical expectation of noise $z(t)$, Q is the operator of time-variable linear transformation which acts upon a stationary normal centered process $x(t)$ and which determines the effect of time on dispersion and correlation function of noise $z(t)$. Formulas are derived for an optimal receiver structure which calculates the logarithm of the likelihood ratio for detecting determinate and noise-like (stationary random normal) signals in noise; the efficiency of such a receiver is compared to that of a quasi-optimal receiver constructed without allowance for nonstationary nature of noise. It turns out that the lack of allowance for the effect of time on mathematical expectation of noise results in a lower efficiency. Bibliography of 8 titles. V. B. [Translation of abstract]

Cord 1/1

SUB CODE: 09, 17

UDC: 621.391.1.519.2

BALL, G.A.; BELOUSOV, A.A.

Time correlation of signals with random varying delay. Radiotekh. i
elektron. 10 no.7:1171-1175 J1 '65. (MIRA 18:7)

L 112095-66 EWT(1)
ACC NR: AP6029033

SOURCE CODE: UR/0413/66/D00/014/0049/0049

INVENTOR: Vishnevskiy, A. I.; Aleksandrov, V. T.; Belousov, A. A.

ORG: none

TITLE: Self-heating diode²⁵ Class 21, No. 483839

SOURCE: Izobret prom, opis, tov zn, no. 14, 1966, 49

TOPIC TAGS: diode, electron tube, *cathode*

ABSTRACT: An Author Certificate has been issued for a self-heating diode (see Fig. 1) with an anode which serves as a heat-radiating element. To increase the efficiency,



Fig. 1. Self-heating diode

1 -- Thermal shield; 2 -- cathode;
3 -- anode; 4 -- starting heater.

Card 1/2

UDC: 621.385.2.032.269

24
B

L 42095-66

ACC NR: AP6029033

and improve the parameters of the diode, both the inside and outside surfaces of the cathode are covered with an emitting material so that the thermal shield serves as a second anode. Orig. art. has: 1 figure. [IV]

SUB CODE: 09/ SUBM DATE: 09Apr64/ ATD PRESS: 5062

Card 2/2 af

Belousov, A. B.

PHASE I BOOK EXPLOITATION

183

AUTHOR: Belousov, A. B.

TITLE: Organization of the Work of a Measurement Laboratory in a Machine-building Plant (Organizatsiya raboty izmeritel'noy laboratorii mashinostroitel'nogo zavoda)

PUB. DATA: Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo mashinostroitel'noy literatury, Moscow, 1957, 104 pp., 10,000 copies

ORIG. AGENCY: None given

EDITOR: Ivanov, A. G., Candidate of Technical Sciences; Ed. for Machinery and Instrument Construction: Pokrovskiy, N.V., Engineer; Ed. of the Publishing House: Prokof'yeva, L. G.; Tech. Ed.: Uvarova, A.F., Reviewer: Rymar', N.F., Engineer

PURPOSE: The monograph is authorized as a textbook for technical schools by the Academic Council for Professional and

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Organization of the Work (Cont.)

183

Technical Education of the Main Administration of Labor Reserves,
Council of Ministers, USSR.

COVERAGE:

The book presents basic principles for organizing and operating a measurements laboratory in a machine-building plant. A brief review of the following aspects is presented: the importance of preserving the unity of measures; rules for verification of standards and instruments; preparation of verification schemes, charts, and documents for verifying, rating and certifying measuring devices; the procedure for verification of measuring devices; cutting tools and instruments in actual use. The book deals with official Soviet practices. There are 13 references, all of them Soviet.

Card 2/8

2

BELOUSOV, A.D., doktor tekhn.nauk, prof.; YERMOLENKO, A.V., inzh.

Study of the thermal resistances of multilayer elements.
Trudy NIISF no.1:18-21 '62. (MIRA 15:11)
(Heat--Transmission)

BELOUSOV, A.D., prof., doktor ~~tehn.~~ nauk

Analyzing the driving of trains on a rated incline. Trudy NIIZHT
no.33:4-9 '63.

Conditions of work and rest periods of locomotive crews Ibid.s10-16
(MIRA 17:3)

BELOUSOV, Andrey Danilovich, prof.; PRIZOVSKIY, K.I., red.;
ZVOLINSKIY, S.A., tekhn. red.

[Diesel locomotives; textbook for students of the Scientific
and Research Institute of Railroad Transportation] Teplovozy;
uchebnoe posobie dlia studentov NIIZhTa. Novosibirskii in-t
inzhenerov zhel-dor. transporta, 1961. 199 p. (MIRA 17:1)

BELOUSOV, A.D., prof.

Previously classified SECRET

Lengthening of haul distances in case of diesel traction. Trudy
NIIZHT no.25:175-185 '61. (MIRA 16:11)

BELOUSOV, A.D., prof. (Novosibirsk); SHESTAKOV, A.I. (Novosibirsk)

Important potentials for the improvement of work conditions
and rest periods of locomotive crews. Zhel. dor. transp. 46
no.7:38-39 J1 '64. (MIRA 17:8)

1. Glavnyy inzh. Zapadno-Sibirskoy dorogi (for Shestakov).